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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/966,753   | 10/01/2001  | Lev Smolyar          | P-1987-US1          | 3706             |
| 49444  | 7590        | 10/17/2006           | EXAMINER            | ZHENG, EVA Y     |
| PEARL COHEN ZEDEK LATZER, LLP<br>1500 BROADWAY, 12TH FLOOR<br>NEW YORK, NY 10036 |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2611                |                  |

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

(2)

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/966,753             | SMOLYAR ET AL.      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Eva Yi Zheng           | 2611                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 July 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-28 and 30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-28 and 30 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 14-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being lack of antecedent basis.

6. Claim 26 recites the limitation "said step of generating" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5, 9-16, 18, 22-25, 28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ono (US 5,999,560).

a) Regarding to claim 1, Ono disclose a rake receiver comprising:

a direction metric determiner (310 and 320 in Fig. 3) which generates direction metrics of each of a set of possible directions of joint movement (Col 4, L28-41) of at least two fingers of a finger block of the rake receiver (100-1 and 100-8 finger unit);

a metric selector which selects one of said direction metrics according to a predetermined criterion (330 in Fig. 3; abstract; Col 4, L49- Col 5, L 35); and

a finger adjuster (200 in Fig. 3) which moves the fingers of said finger block in the directions indicated by said selected direction metric (Col 5, L44-49).

b) Regarding to claims 2 and 15, Ono disclose wherein said selected direction metric is the maximal direction metric (inherent as Col 6, L27-31).

c) Regarding to claims 3 and 16, Ono disclose wherein said finger adjuster moves the fingers of said finger block only if said selected direction metric is the maximal

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direction metric and exceeds a comparison direction metric by at least a predetermined threshold (abstract; Col 6, L27-31).

- d) Regarding to claims 5 and 18, Ono disclose wherein said finger block is formed of two fingers (100-1 and 100-8 finger unit).
- e) Regarding to claims 9 and 22, Ono disclose wherein said finger block is formed of two closely spaced fingers (100-1 and 100-8 finger unit).
- f) Regarding to claims 11 and 24, Ono disclose wherein said finger block is formed of three fingers (100-1 and 100-8 finger unit).
- g) Regarding to claims 10,12, 23 and 25, Ono disclose that delays between fingers are set 7/8 chip apart and no smaller than 7/8 chip apart (Col 4, L49-56; 0.75 chip or more).
- h) Regarding to claims 13 and 28, Ono disclose wherein said direction metrics are based on power estimation (Col 4, L28-41).
- i) Regarding to claim 14, Ono disclose
  - an article comprising a storage medium having stored thereon instructions, that, when executed by a computing platform, cause the computing platform to generate direction metrics (310 and 320 in Fig. 3; Col 4, L28-41) of each of a set of possible directions of joint movement of at least two fingers of a finger block of a rake receiver (100-1 and 100-8 finger unit), select one of said direction metrics according to a predetermined criterion (330 in Fig. 3; abstract; Col 4, L49- Col 5, L 35), and to move the fingers of said finger block in the directions indicated by said selected direction metric (200 in Fig. 3; Col 5, L44-49).

j) Regarding to claim 30, Ono disclose a method comprising:

forming a finger block of at least two fingers of a rake receiver (100-1 and 100-8 finger unit); and

jointly tracking the fingers of said finger block by (as shown in Fig. 3):

generating direction metrics of each of a set of possible directions of joint movement of the fingers of said finger block (310 and 320 in Fig. 3; Col 4, L28-41);

selecting one of said direction metrics according to a predetermined criterion (330 in Fig. 3; abstract; Col 4, L49- Col 5, L 35); and

moving the fingers of said finger block in the directions indicated by said selected direction metric (200 in Fig. 3; Col 5, L44-49).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,999,560) in view of La Rosa et al. (US 6,078,611).

a) Regarding claims 4 and 17, Ono disclose all the subject matters above except for the specific teaching of a redefinder which redefines finger blocks.

However, La Rosa, in the filed of endeavor, disclose a finger deassign (324 in Fig. 3) in a joint tracking system. Therefore, it is obvious to one of ordinary skill in art at

the time of invention to implement a finger deassign in the rake receiver system of Ono. By doing so, provide better finger controls, save time, and eliminate undesirable multipath communication.

11. Claims 6-8 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,999,560).

a) Regarding to claims 6-8 and 19-21, Ono disclose all the subject matters above except for the specific teaching of five, six or nine different directions of joint movement, such limitation are merely a matter of design choice and would have been obvious in the system of Ono. Ono teaches rake receiver system having a plurality of fingers is switched in dependence upon a reception state (abstract; Fig. 3). The limitations in claims 6-8 and 19-21 do not define a patentably distinct invention over that in Ono since both the invention as a whole and Ono are directed to optimum selection from a set of different directions or reception characteristics. The number of directions or reception states is inconsequential for the invention as a whole and present no new or unexpected results, as long as the most desirable is selected. Therefore, to have five, six or nine different directions in Ono would have been a matter of obvious design choice to one of ordinary skill in the art.

12. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 5,999,560) in view of Komatsu (US 6,144,860).

Regarding to claims 26 and 27, Ono disclose all the subject matters above except for the specific teaching of uses a forgetting factor in time averaging the direction metric.

However, Komatsu disclose a transmission power control system comprises a time averaging unit using a forgetting factor to distribute values to obtain average value as an interference wave signal level Col 8, L14-24; Fig. 1). Therefore, it is obvious to one of ordinary skill in art to combine the teaching of forgetting factor in time averaging by Komatsu in the rake receiver of Ono. By doing so, maintain quality of receive signal, improving measurement accuracy of received signal level, and achieve transmission power control.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571-272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng  
Examiner  
Art Unit 2611

October 15, 2006

*Chieh M. Fan*  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER